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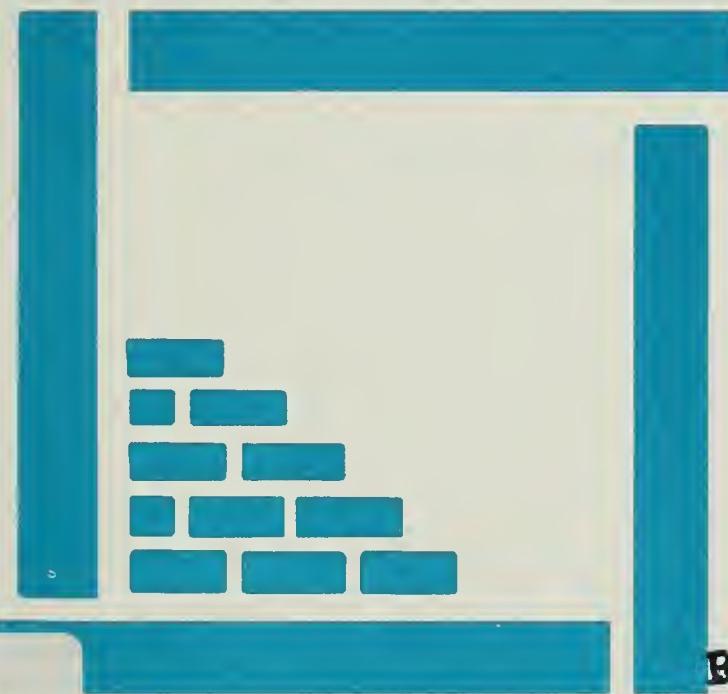
Census of Construction Industries

CC87-I-26

INDUSTRY SERIES

Special Trade Contractors, Not Elsewhere Classified

Industry 1799



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Many persons participated in the various activities of the 1987 Census of Construction Industries.

The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Construction Statistics Division. **Barry A. Rappaport**, Assistant Division Chief for Industry Surveys, was responsible for the overall planning, management, and coordination of the census of construction industries. Planning and implementation were under the direction of **A. William Visnansky**, Chief, Census Operations Branch, with primary staff assistance by **Juliana Van Berkum**, **Barbara J. Hadden**, **Edward R. Glover**, **Susan L. Hostetter**, **Shirley M. Baker**, and **Carolyn J. Stone**. Under the direction of **Jesse Pollock**, **Edward K. Ricketts** and **Dennis K. Duke** developed the sampling plans and variance and estimation specifications.

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If you have any questions concerning the statistics in this report, call (301) 763-7546.

1987

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Construction Industries

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Issued January 1990



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PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the—

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan

areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

One important change involves receipts of contractors and builders. Prior to 1987, the Census of Construction Industries collected receipts as the primary measure of construction activity. For 1987, the census collected the "value of construction work done" to better measure actual construction activity done during the year. Differences between the two concepts occur when work is done in one year and payment received either from the prior or in the succeeding year. In addition, receipts do not include work a contractor performs for its own account and use.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in

other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Construction Reports* (building permits, housing starts, and value of new construction put in place), *Current Business-Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION

The 1987 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property

into lots as defined in the 1987 Standard Industrial Classification (SIC) Manual.¹ This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction—The SIC manual defines construction in three broad types of activity that follow:

1. **Building construction by general contractors or by operative builders**—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
2. **Heavy construction general contractors**—Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
3. **Construction by other special trade contractors**—These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

In addition to the industries classified in the SIC manual as Construction, this census also includes one industry

classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. These establishments are engaged in subdividing real property into lots and in developing it for sale on their own account.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1987. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

A revised edition of the SIC Manual was issued in 1987. Minor modifications were made to three industries in the construction sector: SIC 1611, Highway and Street Construction Contractors, Except Elevated Highways; SIC 1629, Heavy Construction Contractors, N.E.C.; and SIC 1771, Concrete Work Special Trade Contractors. The extent of these modifications are explained in the specific texts for those industries. "Bridge tables" are also included showing selected data tabulated using both the previous classification system and the 1987 revision.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1987. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

If an establishment engaged in construction and one or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1987 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1987 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The companies included in the 1987 Census of Construction Industries were identified as part of an operation common to all 1987 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government.

Employer Companies

Developing the sampling frame for employer companies—This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative records data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1987 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multistablishment companies and large single-establishment companies. Thus, the 1987 Economic Census list for single-establishment employer companies was obtained from the IRS-SSA, but the list of establishments of multistablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

Selecting the employer sample—The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multistablishment companies, all single-establishment companies with estimated total employment of 20 employees or more, and a probability sample of single-establishment companies with estimated employment of fewer than 20 employees.

Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 533,000 single-establishment employer companies initially classified as construction companies, 147,000 were included in the sample. All of the 13,000 establishments of multistablishment companies were included in the sample. There was a net increase in the sample of 60,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan

area or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

Estimation procedures for 1987 and 1982 data— Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1987 and 1982 published here are simple unbiased estimates of the form:

$$x'_c = \frac{\sum x_i / p_i}{n_c}$$

$$i = 1$$

where: x'_c is the simple unbiased estimate of a characteristic for a publication cell.

x_i is the reported value of a characteristic for an individual establishment in the publication cell.

p_i is the selection probability of that firm.

n_c is the number of firms in the sample for the cell.

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

Reliability of employer statistics— Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the

sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

Nonemployer Companies

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1987 Census of Construction Industries was obtained from employer establishments primarily through the use of twenty-four questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179 and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and appropriate advisory groups. The Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1987 census report forms were mailed out in December 1987. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1988.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all

revisions and corrections made during the review of the preliminary reports and contain considerably more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1987 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical locations of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries, results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1987 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, land receipts are also subtracted from dollar value of business done.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, DC, 20233.

To discuss a special tabulation before submitting specifications, call 301-763-7546.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1987 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the Census of Construction.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

*	Sampling error exceeds 40 percent.
**	Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
-	Represents zero.
†	Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
††	Represents dollar value of business done less costs for construction work subcontracted to others, and costs for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from dollar value of business done. (See Duplication in Value of Construction Work.)
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
,	
(W)	Greater than zero but less than 1 percent.
(X)	Not applicable.
n.s.k.	Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By size class of dollar value of business done	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery and equipment.....	3					
End of year—total.....	1, 3	1	5	6		
End of year—buildings, machinery and equipment.....	3					
Depreciation charges during year— buildings, machinery and equipment.....	3					
Capital expenditures:						
Total capital expenditures	1, 3	1	5	6		
New buildings—machinery and equipment	3					
Used buildings—machinery and equipment.....	3					
Communication services, costs for	2					
Employees:						
All employees—average number.....	1, 2	1	5	6		
Construction workers—average number.....	1, 2, 9	1, 9				
Other employees—average number	2					
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments—number in business during year	1, 2, 4, 9	1, 9	5	6		
Hours—construction workers:						
Total.....	1, 2, 9	1, 9	5	6		
Quarterly	2, 9	9				
Inventories	4					
Materials, components, supplies, and fuels—costs for	1, 2	1	5	6		
Payroll:						
First quarter, all employees.....	2					
Annual:						
All employees.....	1, 2	1	5	6		
Construction workers	1, 2	1				
Other employees.....	2					
Power, fuels, and lubricants—costs for	2					
Proprietors and working partners.....	2					
Ratios, State.....	13	13				
Value and receipts:						
Dollar value of business done, total	2					
Value of construction work, total	1, 2, 4	1	5	6	11	
For work subcontracted in from others.....	2				2, 7, 10	
Other business receipts and land receipts ²	2					
Net value of construction work.....	1, 2	1	5	6		
Value added	1, 2	1	5	6		
Rental costs:						
Total.....	1, 2	1	5	6		
For machinery and equipment	2					
For buildings.....	2					
Repairs to buildings and other structures.....	2					
Repairs to machinery and equipment	2					
Selected industry ratios	12					
Subcontract work to others, costs for.....	1, 2	1	5	6		

Note: Data for 1982 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work. Ownership—private or government owned.

²Land receipts are shown separately for SIC's 1531 and 6552 only.

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Special Trade Contractors, Not Elsewhere Classified

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SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in construction work that could not be classified in another specific industry. This industry includes establishments engaged in construction of swimming pools and fences, erection and installation of ornamental metal work, house moving, shoring work, waterproofing, dampproofing, fireproofing, sandblasting and steam cleaning of building exteriors. For additional examples, refer to the 1987 Standard Industrial Classification (SIC) Manual published by the Office of Management and Budget, Executive Office of the President.

During 1987, the establishments with paid employees classified in this industry accounted for \$11.3 billion in total dollar value of business. Of this amount, \$10.8 billion were for the value of construction work. These establishments paid out \$3.4 billion for materials, components, and supplies and \$982 million for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for this industry were \$251 million. Value added for 1987 was \$6.6 billion.

There were 23,198 establishments with total employment averaging 176,084 during the year. Total payroll for 1987 was \$3.1 billion. Total hours worked by construction workers during the year were 222 million hours.

Larger establishments with 20 employees or more, while representing only 7 percent of the total number of

employer establishments in this industry accounted for 43 percent of all business done.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

In 1987, the value of construction work was collected to better measure actual construction activity done during the year. Construction receipts, as reported in earlier censuses, may have included the value of work done before or after the calendar year and may have excluded the value of work in progress during the calendar year. Receipts may have also excluded work done by builders engaged in construction for sale on their own account or for their own use. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the Introduction.

Figure 1. Value of Construction Work by Type of Construction

(Percent)

1987
1982

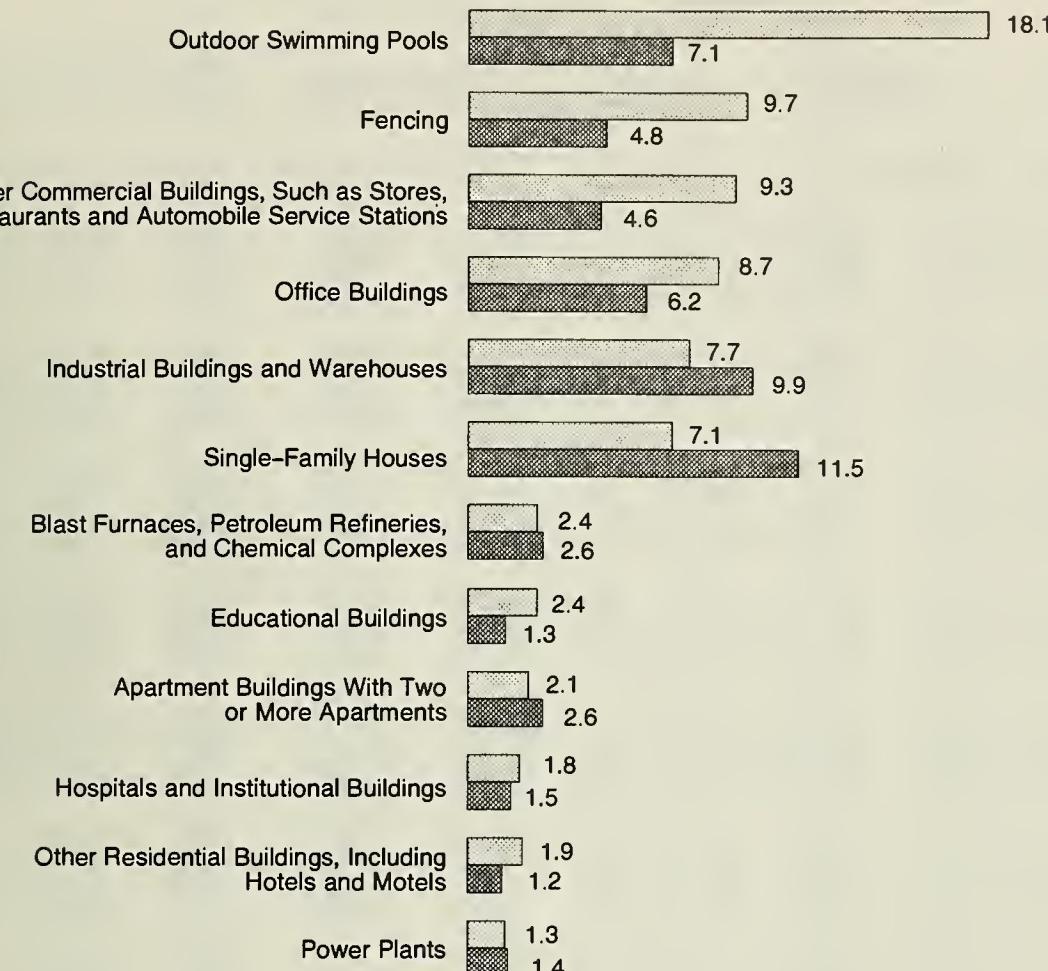


Figure 2. Selected Costs Per Dollar Value of Business Done

(Percent)

1987
1982

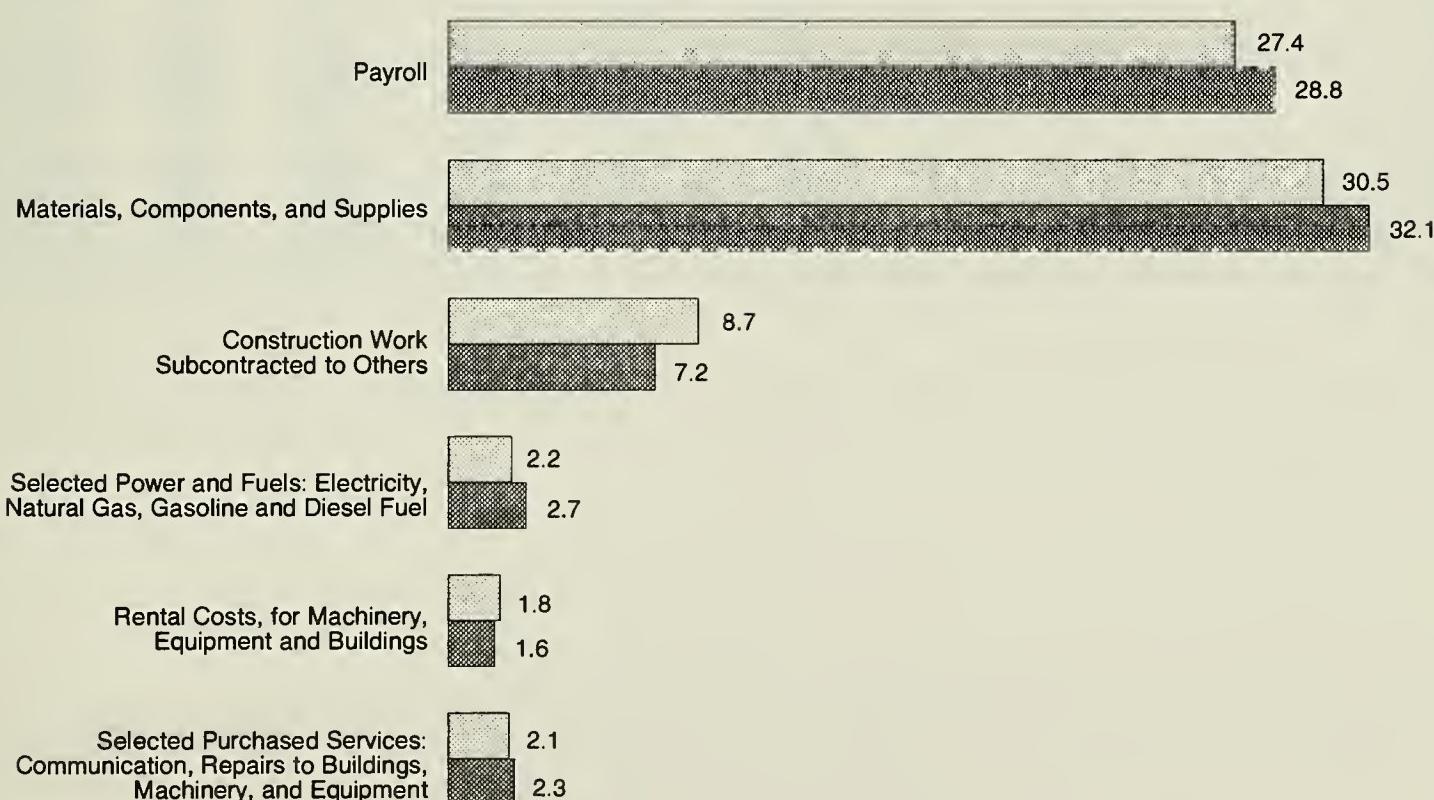


Table 1. General Statistics for Establishments With Payroll by State: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	1987								
	Number of establishments	Employees**		Payroll		Construction worker hours (thousands)	Value of construction work	Net value of construction work†	
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	
United States	23 198	176 084	141 615	3 089 338	2 268 750	221 784	10 814 313	9 832 759	
Alabama	321	2 527	2 107	35 701	27 617	3 172	118 173	110 352	
Alaska	99	545	413	14 552	11 330	767	39 237	37 232	
Arizona	510	4 470	3 462	73 390	52 245	6 054	255 929	228 797	
Arkansas	160	852	648	12 640	9 329	1 088	41 703	40 138	
California	3 021	24 683	19 694	492 221	363 363	32 135	1 733 578	1 558 899	
Colorado	363	2 628	2 053	44 743	32 826	3 663	150 079	141 928	
Connecticut	294	2 384	1 894	49 446	33 666	3 146	162 704	145 702	
Delaware	61	349	278	5 826	3 971	432	20 388	17 069	
District of Columbia	11	110	99	2 634	2 220	112	*14 245	*13 075	
Florida	1 895	12 289	9 849	187 712	138 871	16 139	775 563	676 664	
Georgia	641	6 197	4 993	76 009	55 490	6 480	302 106	270 827	
Hawaii	53	639	490	14 953	8 438	788	43 621	40 965	
Idaho	56	(S)	(S)	(S)	(S)	(S)	(S)	(S)	
Illinois	743	6 536	5 167	132 428	95 433	7 449	443 312	420 788	
Indiana	429	2 860	2 301	46 201	33 913	3 405	161 240	149 300	
Iowa	164	748	647	11 681	9 287	953	39 570	36 302	
Kansas	224	1 270	996	16 666	12 580	1 450	51 521	48 281	
Kentucky	250	1 342	1 085	20 066	14 594	1 829	65 373	61 800	
Louisiana	347	3 746	3 248	67 978	56 053	4 860	177 084	169 830	
Maine	129	637	516	10 478	8 016	679	40 391	38 973	
Maryland	500	4 721	3 786	84 652	56 068	5 983	297 390	266 188	
Massachusetts	598	5 385	4 456	108 301	82 274	6 835	378 371	347 292	
Michigan	683	6 168	4 989	113 297	84 456	7 220	361 966	335 625	
Minnesota	351	2 416	1 863	44 650	33 693	2 888	146 875	139 214	
Mississippi	109	663	561	11 219	8 786	1 057	40 077	37 132	
Missouri	454	3 385	2 683	62 180	47 386	4 238	207 505	187 741	
Montana	85	474	365	6 917	5 608	695	21 430	21 070	
Nebraska	115	666	571	8 021	6 649	859	27 117	24 612	
Nevada	144	1 213	1 002	20 951	16 246	1 751	75 123	68 132	
New Hampshire	156	918	726	15 703	12 396	1 210	59 667	58 002	
New Jersey	933	8 298	6 621	174 911	112 221	10 499	561 759	500 606	
New Mexico	151	941	768	11 825	8 678	1 361	37 849	35 112	
New York	1 668	14 166	11 599	260 646	195 921	17 039	960 322	871 601	
North Carolina	630	4 025	3 174	60 840	44 563	5 470	220 988	203 669	
North Dakota	23	250	206	3 660	2 909	328	13 371	10 670	
Ohio	812	6 149	4 845	104 479	78 371	7 610	365 242	332 864	
Oklahoma	263	1 696	1 287	28 574	20 923	1 931	99 724	91 285	
Oregon	299	1 270	1 017	21 585	16 232	1 423	79 769	74 847	
Pennsylvania	873	6 951	5 813	136 841	99 038	9 423	508 237	445 174	
Rhode Island	171	827	660	14 889	11 388	995	57 342	55 140	
South Carolina	362	2 439	1 965	33 275	25 195	3 431	123 568	115 155	
South Dakota	60	297	225	4 069	2 846	274	16 554	15 959	
Tennessee	414	2 976	2 408	43 321	33 799	3 559	150 623	135 794	
Texas	1 770	12 895	10 373	206 887	150 552	15 419	709 892	641 487	
Utah	155	1 006	817	15 159	11 093	1 044	53 546	49 752	
Vermont	56	333	264	5 429	3 972	448	21 464	20 615	
Virginia	624	5 149	4 208	82 031	59 630	7 383	257 699	235 932	
Washington	454	2 341	1 887	38 428	29 621	2 580	135 274	128 265	
West Virginia	67	453	353	5 625	4 047	*635	18 479	16 937	
Wisconsin	360	2 128	1 652	38 200	29 262	2 519	143 184	134 103	
Wyoming	67	359	292	4 246	3 247	534	13 422	12 248	

[†]In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

1987—Con.

1982

Value added††	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted to others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts†	Relative standard error of estimate (percent) for column—			Location of establishment	
								B	H	M		
I	J	K	L	M	N	O	P	Q	R	S		
6 622 229	3 690 418	981 554	198 704	206 173	1 376 845	127 727	6 076 411	3 694 404	1	1	3	U.S.
77 387	42 537	7 821	1 792	2 322	16 152	(D)	53 332	32 250	7	8	20	AL
33 716	7 947	2 004	918	*730	6 192	(S)	(S)	(S)	16	15	42	AK
156 018	101 957	27 132	3 979	5 589	37 156	(D)	(D)	(D)	5	6	13	AZ
24 691	18 770	1 565	860	335	6 447	(D)	(D)	(D)	14	13	30	AR
1 068 146	540 026	174 679	34 617	31 618	214 445	17 501	847 968	528 785	2	2	7	CA
90 153	57 418	8 151	3 131	2 725	26 772	1 782	89 364	51 773	7	7	22	CO
103 898	48 219	17 001	2 610	2 922	16 332	(D)	(D)	(D)	6	5	20	CT
13 413	4 793	3 318	322	466	4 162	297	11 829	7 381	21	19	36	DE
*8 669	*4 502	1 170	99	66	388	(S)	(S)	(S)	29	44	(W)	DC
426 271	275 282	98 899	13 837	14 471	82 402	9 315	457 482	242 405	3	4	11	FL
174 610	108 062	31 278	4 282	5 274	30 245	3 247	142 296	84 135	4	6	22	GA
29 302	16 443	2 656	1 214	892	4 932	412	20 484	12 697	11	9	19	HI
(S)	(S)	(S)	(S)	(S)	(S)	(D)	(D)	(D)	(S)	(S)	(S)	ID
295 541	140 992	22 523	6 910	7 025	41 967	4 210	223 596	145 330	5	5	16	IL
100 864	55 808	11 940	2 646	2 387	15 591	1 755	74 931	40 755	8	8	13	IN
26 120	11 993	3 268	820	*1 107	4 765	430	20 007	(D)	16	16	60	IA
32 822	19 292	3 239	901	600	9 075	(D)	(D)	(D)	12	13	28	KS
41 137	22 027	3 572	945	411	*11 274	1 215	42 644	25 391	14	14	39	KY
119 860	57 527	7 254	5 341	2 621	23 146	6 871	367 660	266 998	5	5	24	LA
26 592	14 173	1 417	964	*2 113	*8 134	889	46 897	(D)	14	13	43	ME
187 842	89 000	31 201	6 619	7 125	37 038	2 535	110 245	63 892	5	6	12	MD
238 724	122 616	31 079	6 897	7 722	43 358	2 759	143 465	80 207	4	4	16	MA
223 339	125 176	26 341	6 100	7 949	48 926	2 613	124 544	76 750	5	5	13	MI
102 366	52 868	7 660	2 679	2 801	24 139	1 280	57 896	38 696	7	8	18	MN
26 048	14 455	2 945	563	559	4 115	1 289	40 671	23 471	18	18	37	MS
130 050	69 771	19 764	4 267	4 159	25 475	2 044	82 871	48 713	6	7	16	MO
14 598	9 259	360	759	*1 342	4 823	249	11 389	7 514	17	17	46	MT
18 279	8 914	2 505	440	745	4 870	(D)	21 546	13 963	15	14	35	NE
43 702	25 578	6 991	1 193	933	8 469	(D)	41 837	(D)	9	9	22	NV
35 242	25 377	1 664	348	1 195	7 770	(D)	19 721	(D)	16	25	27	NH
347 105	178 263	61 153	9 666	9 285	52 257	4 263	223 671	139 209	4	3	12	NJ
23 986	16 072	2 737	807	644	6 735	744	(D)	19 544	11	10	29	NM
581 588	321 832	88 721	17 412	18 939	124 349	9 364	440 059	282 493	3	3	8	NY
128 173	91 589	17 318	3 858	5 643	34 983	2 516	(D)	(D)	6	7	23	NC
5 336	(D)	2 700	36	105	2 270	(D)	19 421	12 022	8	10	23	ND
225 878	(D)	32 378	5 955	6 428	51 099	3 555	169 884	101 476	5	5	12	OH
58 742	38 430	8 438	2 862	2 210	16 164	2 508	119 979	72 823	9	10	38	OK
49 720	28 630	4 922	1 155	1 139	7 984	647	(D)	19 654	11	12	18	OR
299 360	167 196	63 062	8 268	10 120	57 404	3 670	207 286	117 257	4	4	11	PA
33 461	23 310	2 202	409	827	5 868	322	16 828	9 726	14	27	22	RI
72 845	47 454	8 413	2 781	4 869	30 013	(D)	(D)	(D)	9	10	27	SC
9 245	8 576	594	224	*200	*1 220	(S)	(S)	(S)	15	19	48	SD
84 831	60 518	14 829	2 366	3 320	14 430	1 873	82 842	42 334	8	7	39	TN
424 871	240 565	68 405	14 749	9 272	104 970	17 153	836 304	511 227	3	3	8	TX
35 389	18 824	3 794	687	*1 337	4 871	909	40 462	23 168	13	13	44	UT
12 552	8 910	848	240	*769	2 837	297	13 911	8 194	16	15	62	VT
154 486	99 590	21 766	5 465	6 717	47 146	2 864	123 435	78 466	9	6	18	VA
88 358	47 446	7 008	2 175	2 938	17 690	1 707	65 011	38 836	8	7	24	WA
10 869	7 829	1 542	*337	*296	*5 507	473	19 918	13 323	36	30	70	WV
88 473	55 575	9 081	2 253	2 207	15 584	1 278	52 363	(D)	10	9	18	WI
8 403	5 528	1 174	196	*358	*2 582	542	26 229	14 855	21	18	48	WY

Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	1977	1972	Relative standard error of estimate (percent)			
					1987	1982	1977	1972
Number of establishments in business during year	23 198	20 446	20 626	15 420	1	1	2	2
Proprietors and working partners	4 343	5 536	11 192	9 253	4	3	3	3
All employees**	176 084	127 727	128 440	101 294	1	1	1	2
Construction workers:								
March	125 584	91 693	93 499	70 748	1	1	1	2
May	147 327	107 455	115 011	85 060	1	1	1	2
August	155 062	106 087	118 204	91 680	1	1	1	2
November	138 655	95 737	103 153	77 909	1	1	1	2
Average	141 615	102 099	107 632	82 899	1	1	1	2
Other employees:								
March	32 354	25 458	19 445	17 370	1	1	1	2
May	35 096	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
August	37 017	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
November	33 285	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Average	34 469	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Construction worker hours (thousands):								
January to March	47 737	35 072	(NA)	(NA)	1	1	(NA)	(NA)
April to June	58 150	41 825	(NA)	(NA)	1	1	(NA)	(NA)
July to September	61 219	42 692	(NA)	(NA)	1	1	(NA)	(NA)
October to December	54 677	38 014	(NA)	(NA)	1	1	(NA)	(NA)
Total hours worked	221 784	157 604	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees	3 089 338	1 833 071	1 383 720	826 328	1	1	1	1
Payroll, construction workers	2 268 750	1 331 302	1 085 630	635 758	1	1	1	2
Payroll, other employees	820 588	501 769	298 090	190 570	1	1	1	2
First quarter payroll, all employees	645 275	410 028	282 804	(NA)	1	1	1	(NA)
Employer costs for fringe benefits, all employees	628 063	344 613	263 594	(NA)	1	1	1	(NA)
Legally required expenditures	470 126	259 098	162 846	(NA)	1	1	1	(NA)
Voluntary expenditures	157 937	85 514	100 748	(NA)	1	1	1	(NA)
Dollar value of business done	11 294 202	6 365 681	4 607 808	2 540 138	1	1	1	2
Value of construction work ¹	10 814 313	6 076 411	4 407 208	2 440 265	1	1	1	2
Value of construction work subcontracted in from others	3 523 255	1 975 290	1 564 606	849 910	2	1	1	2
Land receipts ²	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts	479 889	289 270	200 600	99 873	3	2	2	2
Net value of construction work ¹	9 832 759	5 620 493	4 128 771	2 264 658	1	1	1	2
Value added††	6 622 229	3 694 404	2 692 686	1 549 359	1	1	1	2
Selected costs	4 671 973	2 671 277	1 915 122	990 779	1	1	1	2
Materials, components, and supplies ³	3 439 643	2 042 258	1 530 449	815 172	1	1	1	2
Construction work subcontracted to others	981 554	455 918	278 437	175 607	2	2	2	4
Selected power, fuels, and lubricants	250 775	173 100	106 236	(NA)	1	1	1	(NA)
Electricity	33 931	23 221	13 107	(NA)	2	2	1	(NA)
Natural gas	6 745	6 353	6 130	(NA)	3	4	3	(NA)
Gasoline and diesel fuel	196 900	133 904	76 402	(NA)	1	1	1	(NA)
On highway use	174 695	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Off highway use	22 205	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)
Other, including lubricating oils and greases	13 198	9 620	10 600	(NA)	2	3	2	(NA)
Rental cost for machinery, equipment, and buildings	198 704	100 120	65 508	(NA)	2	2	1	(NA)
For machinery and equipment	107 784	54 768	45 111	23 975	2	2	1	4
For buildings	90 920	45 351	20 397	(NA)	2	2	2	(NA)
Selected purchased services	238 813	145 634	103 637	(NA)	2	1	1	(NA)
Communication services	93 178	57 027	36 157	(NA)	2	2	1	(NA)
Repairs to buildings and other structures	14 528	9 761	5 335	(NA)	3	3	2	(NA)
Repairs to machinery and equipment	131 106	78 845	62 145	(NA)	2	2	2	(NA)
Ownership of construction projects:								
Value of construction work ¹	10 814 313	6 076 411	4 407 208	2 440 265	1	1	1	2
Government owned	1 378 600	498 410	545 730	446 471	3	6	1	2
Federal	469 275	(NA)	(NA)	(NA)	5	(NA)	(NA)	(NA)
State and local	909 324	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)
Privately owned	9 435 713	5 578 000	3 861 478	1 993 794	1	1	1	2

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²Data were collected separately for establishments classified in SIC 1531, Operative Builders, and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

³For 1972, includes data for power, fuels, and lubricants.

Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	Relative standard error of estimate (percent)	
			1987	1982
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	1 229 588	1 058 714	2	2
Capital expenditures, other than land	206 173	124 049	3	2
New	165 428	89 241	3	2
Used	40 744	34 808	5	4
Retirements and disposition of depreciable assets	58 916	40 502	9	5
End-of-year gross book value of depreciable assets	1 376 845	1 142 261	2	2
Depreciation charges during year	180 421	163 701	2	2
Buildings and other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	260 303	238 371	5	3
Capital expenditures, other than land	27 754	13 046	11	5
New buildings and other structures	21 313	10 920	13	6
Used buildings and other structures	6 440	2 125	15	12
Retirements and disposition of depreciable assets	11 072	3 963	32	4
End-of-year gross book value of depreciable assets	276 985	247 454	4	3
Depreciation charges during year	21 461	18 442	5	3
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	969 285	820 342	2	2
Capital expenditures, other than land	178 419	111 003	3	2
New machinery and equipment, including automobiles and trucks	144 115	78 320	3	3
New automobiles and trucks, intended primarily for highway use	79 575	40 040	4	4
Used machinery and equipment, including automobiles and trucks	34 304	32 683	5	4
Retirements and disposition of depreciable assets	47 844	36 538	7	5
End-of-year gross book value of depreciable assets	1 099 860	894 807	2	2
Depreciation charges during year	158 960	145 259	2	2

Table 4. Value of Inventories for Establishments With Payroll: 1987 and 1986

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number	23 198	1
Value of construction work	10 814 313	1
Establishments with inventories:		
Number	8 982	2
Value of construction work	5 524 628	2
Inventories:		
End of 1987, materials and supplies	242 068	3
End of 1986, materials and supplies	226 417	3
Establishments with no inventories:		
Number	8 381	3
Value of construction work	2 642 039	3
Establishments not reporting:		
Number	5 835	3
Value of construction work	2 647 646	3

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with an average of—									
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more	
1987											
Number of establishments -----	23 198	(S)	(S)	3 087	1 333	227	89	14	1	1	
All employees** -----	176 084	(S)	(S)	40 461	38 077	15 477	13 548	6 726	(D)	(D)	
Payroll, all employees -----	3 089 338	(S)	(S)	719 554	781 649	320 790	278 188	121 726	(D)	(D)	
Construction worker hours (thousands) -----	221 784	(S)	(S)	51 972	48 521	20 897	18 832	7 203	(D)	(D)	
Dollar value of business done -----	11 294 202	(S)	(S)	2 682 229	2 618 769	1 048 983	847 446	372 414	(D)	(D)	
Value of construction work ¹ -----	10 814 313	(S)	(S)	2 539 287	2 503 691	1 006 529	823 849	355 155	(D)	(D)	
Net value of construction work† -----	9 832 759	(S)	(S)	2 300 445	2 285 098	929 296	744 075	312 354	(D)	(D)	
Value added†† -----	6 622 229	(S)	(S)	1 520 099	1 585 979	655 746	503 767	232 641	(D)	(D)	
Cost of materials, components, supplies, and fuels -----	3 690 418	(S)	(S)	923 287	814 196	316 004	263 904	96 972	(D)	(D)	
Cost of construction work subcontracted to others -----	981 554	(S)	(S)	238 841	218 593	77 232	79 773	42 801	(D)	(D)	
Rental cost for machinery, equipment, and buildings -----	198 704	(S)	(S)	45 603	46 946	17 952	14 924	7 248	(D)	(D)	
Capital expenditures, other than land -----	206 173	(S)	(S)	53 118	46 163	18 286	9 763	3 069	(D)	(D)	
End-of-year gross book value of depreciable assets -----	1 376 845	(S)	(S)	359 591	293 472	100 706	57 663	19 735	(D)	(D)	
1982											
All employees** -----	127 727	25 946	25 940	26 299	25 235	8 385	7 778	3 686	4 458	(D)	
Total construction receipts ¹ -----	6 076 411	1 118 821	1 190 131	1 241 619	1 294 820	469 616	381 510	185 210	194 683	(D)	
Value added†† -----	3 694 404	632 715	655 757	712 741	789 273	307 945	269 916	326 055	(D)	(D)	
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** -----	1	(S)	(S)	3	2	2	2	(W)	(D)	(D)	
Net value of construction work† -----	1	(S)	(S)	2	1	2	(W)	(W)	(D)	(D)	
Capital expenditures, other than land -----	3	(S)	(S)	6	4	6	8	(W)	(D)	(D)	

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1987											
Number of establishments -----	23 198	(S)	(S)	(S)	(S)	4 178	2 809	1 952	466	142	52
All employees** -----	176 084	(S)	(S)	(S)	(S)	26 657	30 563	39 345	19 738	12 593	11 357
Payroll, all employees -----	3 089 338	(S)	(S)	(S)	(S)	400 594	538 064	767 964	432 840	285 369	281 823
Construction worker hours (thousands) -----	221 784	(S)	(S)	(S)	(S)	33 846	38 334	51 869	26 866	17 360	13 387
Dollar value of business done -----	11 294 202	(S)	(S)	(S)	(S)	1 485 571	1 947 750	2 951 774	1 599 653	973 731	985 430
Value of construction work ¹ -----	10 814 313	(S)	(S)	(S)	(S)	1 431 604	1 848 398	2 804 671	1 532 015	935 443	952 319
Net value of construction work† -----	9 832 759	(S)	(S)	(S)	(S)	1 323 235	1 710 844	2 512 660	1 365 542	852 016	826 037
Value added†† -----	6 622 229	(S)	(S)	(S)	(S)	875 351	1 133 142	1 703 676	939 112	593 757	571 007
Cost of materials, components, supplies, and fuels -----	3 690 418	(S)	(S)	(S)	(S)	501 850	677 054	956 087	494 068	296 547	288 141
Cost of construction work subcontracted to others -----	981 554	(S)	(S)	(S)	(S)	108 369	137 553	292 010	166 472	83 427	126 282
Rental cost for machinery, equipment, and buildings -----	198 704	(S)	(S)	(S)	(S)	29 207	35 033	52 455	26 517	15 974	18 069
Capital expenditures, other than land -----	206 173	(S)	(S)	(S)	(S)	33 047	36 555	53 593	26 522	14 690	9 748
End-of-year gross book value of depreciable assets -----	1 376 845	(S)	(S)	(S)	(S)	251 749	241 825	335 567	166 551	72 522	64 389
1982											
All employees** -----	127 727	(S)	(S)	8 492	22 090	20 266	21 431	19 724	10 221	17 046	(D)
Total construction receipts ¹ -----	6 076 411	(S)	(S)	244 918	850 737	911 867	1 074 435	1 186 048	686 678	997 329	(D)
Value added†† -----	3 694 404	(S)	(S)	145 818	492 954	515 502	608 104	700 414	429 379	729 655	(D)
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** -----	1	(S)	(S)	(S)	(S)	3	3	2	1	1	(W)
Net value of construction work† -----	1	(S)	(S)	(S)	(S)	3	3	2	1	2	(W)
Capital expenditures, other than land -----	3	(S)	(S)	(S)	(S)	10	7	5	5	9	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Type of construction	Value of construction work ¹				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction ²	Maintenance and repair				
	A	B	C	D	A	B	C	D
1987								
Value of construction work ¹	10 814 313	4 961 041	1 973 820	1 875 305	1	1	2	1
Building construction								
Single-family houses	4 645 806	2 024 546	1 473 146	1 148 113	1	2	2	2
Single-family houses, detached	767 914	357 173	230 013	180 727	4	5	6	7
Single-family houses, attached	686 523	304 273	218 288	163 961	4	5	7	7
Apartment buildings with two or more apartments	81 390	52 899	11 725	16 765	9	13	14	12
Other residential buildings, including hotels and motels	232 012	120 129	46 739	65 144	6	10	10	6
Hotels and motels	207 045	96 442	62 938	47 664	5	7	8	7
Other residential buildings, excluding hotels and motels	118 545	70 567	27 820	20 157	4	6	3	7
Office buildings	88 500	25 875	35 117	27 506	9	18	13	11
Other commercial buildings such as stores, restaurants, and automobile service stations	937 438	449 476	336 937	151 024	2	3	2	4
Industrial buildings and warehouses	1 001 305	427 359	309 004	264 941	2	3	3	4
Industrial buildings	834 379	355 985	219 816	258 577	2	3	3	5
Warehouses	718 889	286 054	194 123	238 711	2	3	3	5
Educational buildings	115 490	69 931	25 693	19 866	5	6	9	9
Hospitals and institutional buildings	263 748	64 970	119 805	78 973	3	5	6	5
Other nonresidential buildings	193 862	75 721	78 254	39 886	3	6	4	6
	326 648	147 858	97 461	81 335	5	8	7	9
Nonbuilding construction								
Highways, streets, and related facilities	4 164 361	2 936 495	500 674	727 192	2	2	3	3
Outdoor swimming pools	117 660	82 836	15 839	18 984	6	8	12	9
Fencing	1 959 077	1 604 611	169 266	185 199	3	3	8	6
Power and communication transmission lines, towers, and related facilities	1 051 228	829 020	105 288	116 919	4	4	4	5
Sewers, water mains, and related facilities	51 207	25 819	15 814	9 573	15	8	33	16
Blast furnaces, petroleum refineries, and chemical complexes	69 719	45 845	9 610	14 263	10	12	11	15
Power plants	256 934	70 142	62 255	124 536	4	3	6	5
Power plants, nuclear	136 987	36 854	32 109	68 024	3	3	5	4
Power plants, except nuclear	35 406	10 936	9 635	14 834	3	(W)	2	6
Other nonbuilding construction	101 581	25 917	22 474	53 189	4	5	7	4
	521 549	241 368	90 493	189 694	6	7	11	8
Construction work, n.s.k.	2 004 146	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
1982								
Value of construction work ¹	6 076 411	4 334 899	(NA)	1 741 512	1	1	(NA)	1
Building construction								
Single-family houses	2 575 238	1 824 480	(NA)	750 759	1	1	(NA)	1
Single-family houses, detached	701 631	497 376	(NA)	204 255	2	3	(NA)	4
Single-family houses, attached	618 778	436 178	(NA)	182 600	3	3	(NA)	4
Apartment buildings with two or more apartments	82 852	61 197	(NA)	21 654	4	5	(NA)	7
Other residential buildings, including hotels and motels	155 813	97 916	(NA)	57 897	3	3	(NA)	5
Hotels and motels	74 018	58 567	(NA)	15 450	4	5	(NA)	5
Other residential buildings, excluding hotels and motels	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Office buildings	379 584	286 245	(NA)	93 338	1	2	(NA)	3
Other commercial buildings such as stores, restaurants, and automobile service stations	281 481	167 394	(NA)	114 087	3	4	(NA)	4
Industrial buildings and warehouses	601 063	418 573	(NA)	182 489	2	2	(NA)	3
Industrial buildings	509 353	349 481	(NA)	159 872	2	2	(NA)	4
Warehouses	91 710	69 092	(NA)	22 617	2	3	(NA)	3
Religious buildings	25 902	17 127	(NA)	8 775	11	15	(NA)	5
Educational buildings	77 483	57 931	(NA)	19 551	3	4	(NA)	4
Hospitals and institutional buildings	90 031	67 973	(NA)	22 057	3	3	(NA)	6
Amusement, social, and recreational buildings	130 461	113 910	(NA)	16 551	5	5	(NA)	9
Other nonresidential buildings	57 771	41 468	(NA)	16 309	10	14	(NA)	9
Nonbuilding construction								
Highways, streets, and related facilities	1 566 127	1 076 866	(NA)	489 260	2	2	(NA)	2
Outdoor swimming pools	122 722	90 702	(NA)	32 019	4	5	(NA)	6
Fencing	433 781	368 181	(NA)	65 599	3	4	(NA)	5
Sewers, water mains, and related facilities	289 660	255 221	(NA)	34 439	5	6	(NA)	6
Blast furnaces, petroleum refineries, and chemical complexes	61 022	49 639	(NA)	11 383	5	6	(NA)	9
Power plants	157 368	30 181	(NA)	127 187	2	7	(NA)	1
Power plants, nuclear	82 712	56 836	(NA)	25 876	2	2	(NA)	4
Power plants, except nuclear	29 956	21 824	(NA)	8 131	5	3	(NA)	9
Sewage treatment and water treatment plants	52 756	35 012	(NA)	17 744	3	2	(NA)	5
Other nonbuilding construction	21 553	16 239	(NA)	5 313	4	3	(NA)	5
	397 308	209 867	(NA)	187 444	6	7	(NA)	8
Construction work, n.s.k.	1 935 044	1 433 552	(NA)	501 492	1	1	(NA)	1

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²In 1982, data for additions, alterations, or reconstruction were collected separately for SIC 1521, 1522, 1531, 1541, and 1542. For all other industries, data are included with "New construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work subcontracted to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
				A	C	E	F	G	H	B	H
All establishments -----	23 198	176 084	3 089 338	10 814 313	8 437 031	9 832 759	6 622 229	981 554	1	1	2
Establishments not specializing by type -----	2 619	31 158	618 642	1 867 221	(NA)	1 760 405	1 241 216	106 816	1	1	3
Establishments specializing 51 percent or more -----	20 578	144 926	2 470 696	8 947 092	8 437 031	8 072 353	5 381 012	874 738	2	2	4
SINGLE-FAMILY HOUSES, DETACHED											
All establishments specializing in type -----	2 427	12 820	169 872	574 054	515 471	534 596	373 246	39 457	5	5	10
Establishments with —											
100 percent specialization -----	1 314	6 102	79 116	271 611	271 611	244 170	178 590	27 440	7	6	13
90 to 99 percent specialization -----	370	2 474	33 685	109 390	103 178	105 550	77 352	3 839	10	11	37
80 to 89 percent specialization -----	306	1 707	23 063	72 443	59 816	69 675	44 265	2 768	14	13	23
70 to 79 percent specialization -----	255	1 438	17 950	61 513	45 241	57 967	33 631	3 546	17	16	30
60 to 69 percent specialization -----	149	940	14 303	51 663	31 595	49 944	34 148	1 719	13	12	33
51 to 59 percent specialization -----	*31	*156	*1 754	*7 432	*4 027	*7 288	*5 257	(S)	61	56	(S)
SINGLE-FAMILY HOUSES, ATTACHED											
All establishments specializing in type -----	149	762	9 138	25 946	22 975	23 710	17 133	2 236	20	20	36
Establishments with —											
100 percent specialization -----	84	501	5 163	15 091	15 091	13 160	11 751	*1 930	26	24	42
90 to 99 percent specialization -----	3	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
80 to 89 percent specialization -----	-	-	-	-	-	-	-	-	-	-	-
70 to 79 percent specialization -----	*31	*123	*1 428	*4 749	*3 428	*4 719	2 496	*30	45	56	43
60 to 69 percent specialization -----	*30	111	*2 003	*3 846	*2 307	*3 580	*1 974	*265	40	55	45
51 to 59 percent specialization -----	-	-	-	-	-	-	-	-	-	-	-
APARTMENT BUILDINGS WITH TWO OR MORE APARTMENTS											
All establishments specializing in type -----	296	2 223	41 532	135 282	111 342	119 945	78 831	15 336	11	13	10
Establishments with —											
100 percent specialization -----	157	1 022	20 304	51 193	51 193	48 528	34 672	2 664	15	11	19
90 to 99 percent specialization -----	*22	324	6 584	18 586	17 079	15 869	11 250	2 716	28	17	24
80 to 89 percent specialization -----	*23	170	4 118	8 691	7 177	8 459	6 389	*232	30	28	62
70 to 79 percent specialization -----	27	*217	*3 225	7 942	*5 641	7 921	*5 407	*21	41	40	58
60 to 69 percent specialization -----	55	471	6 880	48 109	29 833	38 457	20 651	9 652	26	33	13
51 to 59 percent specialization -----	*10	*17	*420	*760	*418	*710	*460	*50	70	70	70
OTHER RESIDENTIAL BUILDINGS, EXCLUDING HOTELS AND MOTELS											
All establishments specializing in type -----	206	1 204	18 133	61 399	51 731	55 424	40 759	5 974	16	14	25
Establishments with —											
100 percent specialization -----	131	699	8 212	29 165	29 165	26 667	18 232	*2 497	22	23	45
90 to 99 percent specialization -----	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
80 to 89 percent specialization -----	-	-	-	-	-	-	-	-	-	-	-
70 to 79 percent specialization -----	24	313	5 123	21 899	16 070	18 528	14 862	3 370	34	22	28
60 to 69 percent specialization -----	*42	84	1 680	3 360	2 016	*3 360	2 310	(D)	40	40	(D)
51 to 59 percent specialization -----	5	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
OFFICE BUILDINGS											
All establishments specializing in type -----	513	9 840	244 486	694 949	562 696	621 628	435 740	73 321	3	2	3
Establishments with —											
100 percent specialization -----	126	2 935	76 307	197 893	197 893	172 565	120 952	25 327	4	5	7
90 to 99 percent specialization -----	114	1 018	30 808	79 878	73 056	(D)	47 075	(D)	8	5	(D)
80 to 89 percent specialization -----	42	1 513	46 349	134 713	108 235	126 532	88 896	8 181	3	3	2
70 to 79 percent specialization -----	113	1 621	43 204	134 151	95 763	126 400	94 686	7 751	8	5	12
60 to 69 percent specialization -----	84	1 483	27 455	89 176	55 022	79 376	46 536	9 799	6	6	10
51 to 59 percent specialization -----	33	1 267	20 361	59 135	32 725	(D)	37 593	(D)	17	6	(D)
OTHER COMMERCIAL BUILDINGS SUCH AS STORES, RESTAURANTS, AND AUTOMOBILE SERVICE STATIONS											
All establishments specializing in type -----	1 139	9 897	210 437	784 198	732 935	692 510	450 816	91 688	4	3	5
Establishments with —											
100 percent specialization -----	829	6 812	150 458	581 488	581 488	503 815	319 685	77 672	4	4	5
90 to 99 percent specialization -----	83	783	19 134	59 086	54 211	54 257	41 272	4 829	13	13	36
80 to 89 percent specialization -----	106	913	11 719	41 659	33 497	37 983	26 377	3 675	22	15	25
70 to 79 percent specialization -----	46	415	7 784	32 261	23 318	29 200	16 970	*3 061	14	18	17
60 to 69 percent specialization -----	62	562	12 700	44 761	27 088	43 632	30 537	*1 129	15	11	45
51 to 59 percent specialization -----	*10	410	8 640	24 942	13 330	23 621	15 973	1 320	5	6	7
INDUSTRIAL BUILDINGS											
All establishments specializing in type -----	507	9 290	164 970	449 950	397 127	427 527	304 624	22 423	4	4	5
Establishments with —											
100 percent specialization -----	324	5 797	89 699	249 296	249 296	237 258	170 228	12 038	5	5	7
90 to 99 percent specialization -----	41	527	9 389	25 968	23 743	25 135	19 942	*832	29	31	50
80 to 89 percent specialization -----	29	949	20 857	56 359	45 655	54 342	40 671	2 017	19	9	25
70 to 79 percent specialization -----	39	851	21 586	59 310	42 386	55 141	37 821	4 169	12	9	10
60 to 69 percent specialization -----	62	972	18 721	45 176	28 321	43 352	28 679	1 824	8	7	6
51 to 59 percent specialization -----	10	191	4 716	13 839	7 725	12 298	7 282	1 541	11	14	(W)

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987—Con.

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes.]

Item	Number of establish- ments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work sub- contracted to others	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type				B	D	H	
				A	C	D	E	F	G	H		
EDUCATIONAL BUILDINGS												
All establishments specializing in type	117	1 584	29 348	90 155	73 076	83 523	63 307	6 632	8	8	10	
Establishments with —												
100 percent specialization	67	434	7 814	30 119	30 119	28 413	20 082	1 706	14	15	30	
90 to 99 percent specialization	*20	234	4 213	11 885	11 029	10 805	10 115	1 079	32	26	22	
80 to 89 percent specialization	10	320	4 554	9 988	8 394	(D)	7 775	(D)	11	16	(D)	
70 to 79 percent specialization	*4	129	2 365	7 983	5 897	(D)	5 606	(D)	32	37	(D)	
60 to 69 percent specialization	7	259	4 935	15 852	9 977	14 925	10 228	927	(W)	(W)	(W)	
51 to 59 percent specialization	7	205	5 464	14 326	7 657	12 779	9 500	1 546	22	23	12	
HOSPITALS AND INSTITUTIONAL BUILDINGS												
All establishments specializing in type	39	473	13 289	43 985	29 024	38 231	28 608	5 754	16	14	18	
Establishments with —												
100 percent specialization	7	117	3 462	5 684	5 684	(D)	3 632	(D)	14	13	(D)	
90 to 99 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
80 to 89 percent specialization	9	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	
70 to 79 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
60 to 69 percent specialization	*11	169	5 138	18 357	11 235	(D)	13 115	(D)	16	5	(D)	
51 to 59 percent specialization	9	102	3 415	16 016	8 815	13 735	9 192	*2 281	20	37	45	
HIGHWAYS, STREETS, AND RELATED FACILITIES												
All establishments specializing in type	106	1 262	26 740	85 202	73 000	83 312	54 880	1 889	8	9	4	
Establishments with —												
100 percent specialization	61	655	13 630	42 953	42 953	42 190	26 039	762	12	15	6	
90 to 99 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
80 to 89 percent specialization	6	174	4 668	14 008	11 314	(D)	10 121	(D)	15	12	(D)	
70 to 79 percent specialization	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
60 to 69 percent specialization	*11	241	4 476	13 050	8 263	12 700	9 079	349	22	21	20	
51 to 59 percent specialization	*17	143	2 203	5 329	2 905	(D)	3 291	(D)	14	15	(D)	
OUTDOOR SWIMMING POOLS												
All establishments specializing in type	3 091	23 554	412 626	1 965 875	1 943 508	1 592 055	1 048 019	373 820	3	3	6	
Establishments with —												
100 percent specialization	2 756	21 004	368 882	1 784 782	1 784 782	1 448 283	950 672	336 498	3	3	6	
90 to 99 percent specialization	156	1 292	23 977	108 374	105 312	80 575	53 774	27 798	11	11	26	
80 to 89 percent specialization	54	443	8 249	27 400	22 576	24 172	15 672	3 227	17	16	14	
70 to 79 percent specialization	59	532	7 864	28 014	20 332	24 946	19 740	3 067	24	21	11	
60 to 69 percent specialization	*33	173	2 518	11 541	*7 351	9 683	5 294	*1 857	32	40	49	
51 to 59 percent specialization	*30	*108	*1 134	*5 763	*3 153	*4 392	*2 865	*1 371	45	48	54	
FENCING												
All establishments specializing in type	2 259	18 089	277 496	1 036 014	1 015 262	981 293	596 260	54 721	3	4	8	
Establishments with —												
100 percent specialization	2 053	15 330	234 837	880 720	880 720	838 028	509 888	42 691	4	4	9	
90 to 99 percent specialization	124	1 547	25 200	96 735	92 234	87 529	53 414	9 206	10	11	21	
80 to 89 percent specialization	*17	331	5 171	16 040	13 690	15 801	9 991	(S)	19	28	(S)	
70 to 79 percent specialization	44	457	4 548	14 370	10 727	13 944	8 052	*425	37	34	68	
60 to 69 percent specialization	9	395	7 558	26 569	17 020	24 699	14 383	1 869	6	10	9	
51 to 59 percent specialization	*10	*27	*180	*1 580	*869	*1 290	*530	*290	64	64	64	
BLAST FURNACES, PETROLEUM REFINERIES, AND CHEMICAL COMPLEXES												
All establishments specializing in type	178	4 297	100 333	237 281	212 766	226 760	154 148	10 520	5	5	8	
Establishments with —												
100 percent specialization	114	2 198	50 904	120 614	120 614	112 415	77 823	8 198	5	4	7	
90 to 99 percent specialization	12	656	16 128	40 341	38 289	(D)	25 479	(D)	7	6	(D)	
80 to 89 percent specialization	*9	415	9 205	18 723	15 497	17 632	11 320	*1 090	15	26	48	
70 to 79 percent specialization	34	510	9 124	28 427	20 804	28 374	18 201	*53	27	28	72	
60 to 69 percent specialization	6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
51 to 59 percent specialization	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
POWER PLANTS, EXCEPT NUCLEAR												
All establishments specializing in type	54	1 211	28 553	64 753	51 550	63 201	60 158	1 552	7	5	13	
Establishments with —												
100 percent specialization	*23	229	4 049	10 641	10 641	10 377	7 253	(S)	17	20	(S)	
90 to 99 percent specialization	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
80 to 89 percent specialization	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	
70 to 79 percent specialization	*19	223	4 457	8 801	6 429	8 801	6 617	(D)	32	24	(D)	
60 to 69 percent specialization	-	-	-	-	-	-	-	-	-	-	-	
51 to 59 percent specialization	7	286	7 438	16 557	9 499	16 423	16 864	134	8	11	27	

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)
	A	B	C	D	E	F	G
United States -----	23 198	141 615	221 784	125 584	47 737	147 327	58 150
Alabama -----	321	2 107	3 172	2 088	757	2 163	849
Alaska -----	99	413	767	333	136	431	219
Arizona -----	510	3 462	6 054	3 367	1 454	3 730	1 583
Arkansas -----	160	648	1 088	640	243	724	316
California -----	3 021	19 694	32 135	18 542	7 274	20 060	8 245
Colorado -----	363	2 053	3 663	1 886	785	2 103	943
Connecticut -----	294	1 894	3 146	1 666	668	2 036	852
Delaware -----	61	278	432	231	75	282	117
District of Columbia -----	11	99	112	95	27	101	27
Florida -----	1 895	9 849	16 139	9 029	3 770	10 031	4 194
Georgia -----	641	4 993	6 480	4 693	1 465	5 192	1 668
Hawaii -----	53	490	788	475	176	464	183
Idaho -----	56	(S)	(S)	(S)	(S)	(S)	(S)
Illinois -----	743	5 167	7 449	4 317	1 478	5 148	1 869
Indiana -----	429	2 301	3 405	2 015	687	2 426	893
Iowa -----	164	647	953	546	173	700	264
Kansas -----	224	996	1 450	852	305	1 062	370
Kentucky -----	250	1 085	1 829	954	394	1 159	482
Louisiana -----	347	3 248	4 860	2 883	1 081	3 293	1 253
Maine -----	129	516	679	528	197	489	158
Maryland -----	500	3 786	5 983	3 331	1 243	4 263	1 738
Massachusetts -----	598	4 456	6 835	3 788	1 458	4 657	1 768
Michigan -----	683	4 989	7 220	3 813	1 316	5 144	1 901
Minnesota -----	351	1 863	2 888	1 413	521	2 033	767
Mississippi -----	109	561	1 057	501	221	602	284
Missouri -----	454	2 683	4 238	1 968	760	2 742	1 105
Montana -----	85	365	695	237	100	256	122
Nebraska -----	115	571	859	483	177	578	229
Nevada -----	144	1 002	1 751	952	381	1 063	465
New Hampshire -----	156	726	1 210	618	237	799	337
New Jersey -----	933	6 621	10 499	5 597	2 151	6 728	2 693
New Mexico -----	151	768	1 361	609	255	870	398
New York -----	1 668	11 599	17 039	9 753	3 535	12 264	4 462
North Carolina -----	630	3 174	5 470	3 001	1 182	3 346	1 485
North Dakota -----	23	206	328	130	50	224	88
Ohio -----	812	4 845	7 610	3 908	1 500	5 284	2 096
Oklahoma -----	263	1 287	1 931	1 113	440	1 317	517
Oregon -----	299	1 017	1 423	955	310	936	336
Pennsylvania -----	873	5 813	9 423	4 917	1 968	6 006	2 414
Rhode Island -----	171	660	995	595	233	732	270
South Carolina -----	362	1 965	3 431	1 858	766	1 977	887
South Dakota -----	60	225	274	171	53	263	79
Tennessee -----	414	2 408	3 559	2 232	842	2 700	989
Texas -----	1 770	10 373	15 419	9 999	3 595	10 967	4 174
Utah -----	155	817	1 044	819	235	884	265
Vermont -----	56	264	448	149	55	306	129
Virginia -----	624	4 208	7 383	3 785	1 607	4 300	1 929
Washington -----	454	1 887	2 580	1 673	535	1 812	624
West Virginia -----	67	353	*635	251	*132	358	*160
Wisconsin -----	360	1 652	2 519	1 369	487	1 782	672
Wyoming -----	67	292	534	231	*107	271	118

¹Construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1987

July to September		October to December		Relative standard error of estimate (percent) for column—												Location of establishment
Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)	B	C	D	E	F	G	H	I	J	K			Location of establishment
H	I	J	K													
155 062	61 219	138 655	54 677	1	1	1	1	1	1	1	1	1	1	1	1	U.S.
2 165	823	2 019	742	7	11	8	11	8	12	7	11	8	11	8	11	AL
483	225	406	186	16	21	19	24	16	22	17	22	17	23	23	23	AK
3 561	1 584	3 193	1 432	5	7	7	9	6	8	5	8	5	8	5	8	AZ
699	313	530	214	14	18	17	20	15	18	14	20	14	18	14	18	AR
20 559	8 517	19 636	8 098	2	3	2	3	2	3	2	3	2	3	3	3	CA
2 234	1 024	1 989	910	7	11	8	12	8	11	8	11	8	11	8	12	CO
2 036	861	1 842	763	6	8	6	8	6	8	6	9	6	9	6	8	CT
379	127	220	112	22	22	28	19	22	21	29	22	23	23	27	27	DE
103	28	96	28	31	(W)	27	(W)	32	(W)	32	(W)	30	(W)	30	(W)	DC
11 134	4 405	9 205	3 768	3	5	3	5	3	5	5	6	5	6	5	5	FL
5 436	1 778	4 651	1 566	4	6	4	7	4	6	5	6	5	6	5	7	GA
531	222	488	206	11	16	11	16	10	16	10	17	11	17	11	18	HI
(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	ID
5 750	2 111	5 457	1 991	5	5	4	5	5	5	5	6	5	6	5	6	IL
2 606	985	2 161	839	8	10	8	10	8	9	9	12	8	12	8	10	IN
718	286	628	228	16	21	16	20	17	21	18	22	16	22	16	23	IA
1 153	428	917	345	12	14	12	15	12	16	12	14	12	14	12	15	KS
1 165	516	1 061	436	14	15	14	18	13	16	15	18	17	18	17	16	KY
3 342	1 263	3 474	1 262	5	6	4	5	6	6	5	6	7	6	7	7	LA
598	170	448	152	14	21	24	35	14	21	18	22	14	22	14	24	ME
3 934	1 594	3 615	1 407	5	7	5	8	5	7	5	8	5	8	5	7	MD
5 115	1 909	4 269	1 698	4	5	4	6	4	6	4	5	4	5	4	5	MA
5 959	2 161	5 064	1 840	5	6	5	6	5	6	5	6	6	7	6	7	MI
2 158	843	1 864	757	7	9	7	10	8	10	7	10	7	10	7	9	MN
623	303	519	249	19	24	19	24	19	24	19	24	19	24	19	24	MS
3 145	1 273	2 879	1 099	5	7	6	8	6	8	5	7	6	8	6	8	MO
568	282	400	189	13	28	15	26	16	26	12	33	13	33	13	29	MT
624	234	597	217	15	22	16	22	14	22	15	21	16	21	16	22	NE
1 107	460	888	443	10	12	10	12	11	13	11	12	10	12	10	13	NV
804	357	685	279	16	20	17	21	15	19	16	19	16	19	18	22	NH
7 045	2 858	7 119	2 797	4	5	4	5	4	5	4	5	4	5	4	9	NJ
938	424	657	282	10	21	11	18	9	23	10	23	11	23	11	18	NM
13 087	4 880	11 308	4 160	3	3	3	4	3	4	3	4	3	4	3	4	NY
3 354	1 477	2 994	1 325	7	9	7	8	7	8	7	9	7	9	8	11	NC
252	95	221	94	7	12	9	17	8	14	7	11	7	11	7	10	ND
5 419	2 151	4 780	1 862	5	7	5	7	6	7	5	7	5	7	5	7	OH
1 413	508	1 307	464	9	14	10	16	9	15	8	13	9	13	9	14	OK
1 149	413	1 031	362	11	15	12	15	10	14	12	17	12	17	12	17	OR
6 458	2 660	5 886	2 379	4	6	5	6	5	6	5	6	5	6	4	5	PA
682	253	630	238	13	16	15	24	14	18	14	19	14	19	14	18	RI
2 117	928	1 908	849	10	13	10	13	10	13	10	13	11	13	11	14	SC
249	77	218	63	16	24	12	29	17	22	18	23	20	23	20	26	SD
2 606	929	2 092	797	8	10	8	11	8	11	8	10	8	10	8	10	TN
10 736	4 056	9 790	3 593	4	5	3	4	4	5	4	5	4	5	4	5	TX
850	294	717	249	14	21	19	22	17	21	13	20	13	20	13	22	UT
327	144	272	119	15	20	15	23	15	21	17	22	16	22	16	22	VT
4 835	2 064	3 912	1 782	9	9	10	10	9	10	9	10	9	10	9	10	VA
2 045	717	2 022	703	7	10	9	11	8	11	7	11	7	10	7	10	WA
376	*167	*426	*173	38	51	39	54	38	50	37	48	42	54	42	54	WV
1 843	720	1 620	639	10	13	11	15	10	14	10	13	10	13	10	13	WI
345	159	324	149	20	37	23	41	22	37	18	38	17	39	17	39	WY

Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1987					1982 construction receipts for work done in this State ¹	Percent change 1987 (col A) to 1982 (col F)	Relative standard error of estimate (percent) for column—		
	Construction work done by establishments located in this State		Construction work done by establishments not located in this State							
	Value of construction work done in this State ¹	Number	Value of construction work	Number	Value of construction work	A	C	E		
	A	B	C	D	E	F	G			
United States	10 814 314	22 985	9 788 482	6 688	1 025 831	6 076 411	78.0	1	1	3
Alabama	114 359	317	105 717	179	8 641	58 007	97.1	8	8	24
Alaska	44 072	99	39 201	33	*4 871	13 758	220.3	15	15	58
Arizona	258 256	509	244 441	67	13 814	129 586	99.3	6	6	3
Arkansas	43 334	160	36 206	76	7 128	42 196	2.7	12	14	18
California	1 728 974	3 016	1 696 858	81	32 115	842 594	105.2	2	2	12
Colorado	155 127	360	140 931	84	14 196	99 633	55.7	6	7	3
Connecticut	175 638	294	136 246	230	39 392	84 280	108.4	5	6	6
Delaware	26 111	61	15 684	67	10 426	31 636	-17.5	12	20	7
District of Columbia	43 970	11	5 679	157	38 291	28 611	53.7	6	32	4
Florida	761 471	1 885	731 436	203	30 034	451 107	68.8	4	4	8
Georgia	329 015	638	289 561	238	39 453	140 498	134.2	6	7	12
Hawaii	51 879	53	43 506	27	8 373	23 121	124.4	10	10	34
Idaho	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Illinois	435 504	720	390 596	242	44 907	200 847	116.8	4	4	6
Indiana	163 654	429	146 438	167	17 215	82 179	99.1	7	8	8
Iowa	43 962	164	34 884	140	9 078	27 379	60.6	13	15	19
Kansas	63 063	222	41 316	167	21 747	46 700	35.0	11	13	19
Kentucky	77 097	248	59 042	140	18 054	50 119	53.8	10	13	10
Louisiana	179 418	347	165 046	141	14 371	344 201	-47.9	5	5	22
Maine	41 576	129	36 030	39	5 545	47 504	-12.5	13	15	4
Maryland	236 246	498	207 348	176	28 897	119 187	98.2	6	6	8
Massachusetts	368 677	597	329 996	214	38 680	172 069	114.3	4	4	8
Michigan	338 492	672	328 538	126	9 953	123 228	174.7	4	4	3
Minnesota	138 104	351	122 268	64	15 835	58 804	134.9	8	9	28
Mississippi	43 320	101	38 276	103	5 044	47 106	-8.0	17	19	8
Missouri	183 933	454	150 937	200	32 996	86 530	112.6	7	6	23
Montana	15 210	82	13 413	21	1 797	14 510	4.8	23	26	7
Nebraska	32 596	115	25 818	154	6 777	22 347	45.9	13	15	24
Nevada	80 586	144	72 331	82	8 255	46 420	73.6	7	8	5
New Hampshire	57 615	146	42 263	140	15 351	18 262	215.5	10	13	5
New Jersey	546 861	923	486 899	313	59 961	195 897	179.2	3	4	5
New Mexico	40 201	151	37 778	60	2 422	36 670	9.6	9	10	8
New York	1 031 635	1 659	923 384	301	108 250	437 385	135.9	3	3	4
North Carolina	219 228	588	208 696	113	10 531	96 357	127.5	7	7	13
North Dakota	13 662	23	10 029	71	3 633	19 335	-29.3	10	12	11
Ohio	360 557	811	336 821	198	23 736	159 230	126.4	5	5	10
Oklahoma	92 646	262	85 031	118	7 614	120 863	-23.3	11	11	6
Oregon	81 039	299	72 177	71	8 861	30 131	169.0	11	12	10
Pennsylvania	434 787	866	402 652	202	32 134	175 584	147.6	4	4	6
Rhode Island	55 926	171	46 405	86	9 520	16 005	249.4	27	33	19
South Carolina	114 572	360	101 041	257	13 531	63 743	79.7	8	9	12
South Dakota	15 039	60	13 268	39	1 770	8 007	87.8	21	23	38
Tennessee	161 928	404	138 026	175	23 902	80 777	100.5	7	8	15
Texas	687 705	1 767	654 761	131	32 944	815 875	-15.7	4	4	5
Utah	51 683	146	47 966	43	3 716	37 489	37.9	13	14	15
Vermont	22 224	56	19 081	31	3 143	14 895	49.2	13	15	12
Virginia	309 304	614	222 523	188	86 780	124 462	148.5	6	7	9
Washington	141 115	454	125 101	85	16 014	67 457	109.2	7	7	11
West Virginia	26 374	59	17 984	127	8 390	24 972	5.6	19	28	7
Wisconsin	130 600	352	123 146	128	7 453	49 724	162.6	10	10	18
Wyoming	26 575	67	13 406	84	13 169	31 717	-16.2	9	18	6

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind of Business Activity: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	Dollar value of business done ¹		Relative standard error of estimate (percent)	
	1987	1982	1987	1982
All kinds of business.....	11 294 202	6 365 681	1	1
General building contractor	63 413	40 773	11	11
Residential remodeling contractor	98 437	39 773	13	11
Highway and street construction	42 932	(S)	16	(S)
Heavy construction.....	70 939	211 014	10	3
Painting contractor	32 457	26 316	6	5
Masonry contractor	13 612	18 201	15	8
Insulation contractor	27 139	34 501	12	13
Carpentry contractor	11 966	17 387	16	12
Roofing contractor	15 480	17 473	16	14
Concrete construction	19 202	30 572	14	7
Structural steel erection contractor	26 450	36 037	12	2
Glass and glazing contractor	20 460	(S)	15	(S)
Excavation contractor, for buildings	11 753	11 481	22	9
Wrecking and demolition construction	12 108	(S)	18	(S)
Millwright	13 104	35 570	10	13
Antenna installation contractor	78 139	(NA)	11	(NA)
Fencing contractor	1 305 172	967 678	3	3
House moving contractor	134 851	(NA)	9	(NA)
Iron work contractor.....	552 221	422 817	3	2
Sandblasting contractor	168 857	109 388	10	4
Scaffolding contractor	121 012	43 253	4	4
Service station equipment installation contractor	513 698	(NA)	4	(NA)
Swimming pool contractor	1 995 236	989 630	3	2
Test boning or core drilling contractor	178 959	56 546	5	8
Waterproofing, damproofing and fireproofing contractor	840 799	(S)	3	(S)
Welding contractor, on site	417 013	(NA)	4	(NA)
Other construction activities	2 499 809	(S)	4	(S)
Retail trade	252 007	103 956	4	3
Wholesale trade	59 713	29 703	7	5
Other activities	179 661	(S)	3	(S)
Kind of business activity, n.s.k.	1 517 603	(S)	3	(S)

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 12. Selected Industry Ratios for Establishments With Payroll: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1987	1982	Relative standard error of estimate (percent) for 1987
AVERAGE PER ESTABLISHMENT			
Number of employees**	7.6	6.2	1
Number of construction workers	6.1	5.0	1
Number of all other employees	1.5	(NA)	1
Payroll, all employees	\$1,000	133.2	89.7
Payroll, construction workers	do	97.8	65.1
Payroll, all other employees	do	35.4	24.5
Dollar value of business done	do	486.9	311.3
Value of construction work ¹	do	466.2	297.2
Cost of materials, components, supplies, and fuels	do	159.1	108.4
Construction work subcontracted to others	do	42.3	22.3
Rental cost for machinery, equipment, and buildings	do	8.6	4.9
Capital expenditures, other than land	do	8.9	6.1
Gross book value of depreciable assets	do	59.4	55.9
AVERAGE PER EMPLOYEE			
Payroll, all employees	do	17.5	14.4
Dollar value of business done	do	64.1	49.8
Value added††	do	37.6	28.9
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers	do	16.0	13.0
Value of construction work ¹	do	76.4	59.5
Construction worker hours	1 566.1	1 543.6	1
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000	23.8	(NA)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK¹			
Payroll, all employees		.286	.302
Cost of materials, components, supplies, and fuels		.341	.365
Cost of construction work subcontracted to others		.091	.075
Rental cost for machinery, equipment, and buildings		.018	.016

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker	Value of construction work per construction worker (\$1,000)	Average per dollar of value of construction work			
					Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted to others	Rental cost for machinery, equipment, and buildings
United States	7.6	17.5	1 566.1	76.4	.286	.341	.091	.018
Alabama	7.9	14.1	1 505.5	56.1	.302	.360	.066	.015
Alaska	5.5	26.7	1 857.1	95.0	.371	.203	.051	.023
Arizona	8.8	16.4	1 748.7	73.9	.287	.398	.106	.016
Arkansas	5.3	14.8	1 679.0	64.4	.303	.450	.038	.021
California	8.2	19.9	1 631.7	88.0	.284	.312	.101	.020
Colorado	7.2	17.0	1 784.2	73.1	.298	.383	.054	.021
Connecticut	8.1	20.7	1 661.0	85.9	.304	.296	.104	.016
Delaware	5.7	16.7	1 554.0	73.3	.286	.235	.163	.016
District of Columbia	10.0	23.9	1 131.3	*143.9	*.185	*.316	*.082	*.007
Florida	6.5	15.3	1 638.6	78.7	.242	.355	.128	.018
Georgia	9.7	12.3	1 297.8	60.5	.252	.358	.104	.014
Hawaii	12.1	23.4	1 608.2	89.0	.343	.377	.061	.028
Idaho	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Illinois	8.8	20.3	1 441.6	85.8	.299	.318	.051	.016
Indiana	6.7	16.2	1 479.8	70.1	.287	.346	.074	.016
Iowa	4.6	15.6	1 473.0	61.2	.295	.303	.083	.021
Kansas	5.7	13.1	1 455.8	51.7	.323	.374	.063	.017
Kentucky	5.4	15.0	1 685.7	60.3	.307	.337	.055	.014
Louisiana	10.8	18.1	1 496.3	54.5	.384	.325	.041	.030
Maine	4.9	16.4	1 315.9	78.3	.259	.351	.035	.024
Maryland	9.4	17.9	1 580.3	78.5	.285	.299	.105	.022
Massachusetts	9.0	20.1	1 533.9	84.9	.286	.324	.082	.018
Michigan	9.0	18.4	1 447.2	72.6	.313	.346	.073	.017
Minnesota	6.9	18.5	1 550.2	78.8	.304	.360	.052	.018
Mississippi	6.1	16.9	1 884.1	71.4	.280	.361	.073	.014
Missouri	7.5	18.4	1 579.6	77.3	.300	.336	.095	.021
Montana	5.6	14.6	1 904.1	58.7	.323	.432	.017	.035
Nebraska	5.8	12.0	1 504.4	47.5	.296	.329	.092	.016
Nevada	8.4	17.3	1 747.5	75.0	.279	.340	.093	.016
New Hampshire	5.9	17.1	1 666.7	82.2	.263	.425	.028	.014
New Jersey	8.9	21.1	1 585.7	84.8	.311	.317	.109	.017
New Mexico	6.2	12.6	1 772.1	49.3	.312	.425	.072	.021
New York	8.5	18.4	1 469.0	82.8	.271	.335	.092	.018
North Carolina	6.4	15.1	1 723.4	69.6	.275	.414	.078	.017
North Dakota	10.9	14.6	1 592.2	64.9	.274	(D)	.202	.003
Ohio	7.6	17.0	1 570.7	75.4	.286	(D)	.089	.016
Oklahoma	6.4	16.8	1 500.4	77.5	.287	.385	.085	.029
Oregon	4.2	17.0	1 399.2	78.4	.271	.359	.062	.014
Pennsylvania	8.0	19.7	1 621.0	87.4	.269	.329	.124	.016
Rhode Island	4.8	18.0	1 507.6	86.9	.260	.407	.038	.007
South Carolina	6.7	13.6	1 746.1	62.9	.269	.384	.068	.023
South Dakota	4.9	13.7	1 217.8	73.6	.246	.518	.036	.014
Tennessee	7.2	14.6	1 478.0	62.6	.288	.402	.098	.016
Texas	7.3	16.0	1 486.5	68.4	.291	.339	.096	.021
Utah	6.5	15.1	1 277.8	65.5	.283	.352	.071	.013
Vermont	5.9	16.3	1 697.0	81.3	.253	.415	.040	.011
Virginia	8.3	15.9	1 754.5	61.2	.318	.386	.084	.021
Washington	5.2	16.4	1 367.2	71.7	.284	.351	.052	.016
West Virginia	6.8	12.4	*1 798.9	52.3	.304	.424	.083	*.018
Wisconsin	5.9	18.0	1 524.8	86.7	.267	.388	.063	.016
Wyoming	5.4	11.8	1 828.8	46.0	.316	.412	.087	.015

APPENDIX A. Explanation of Terms

Construction—Is composed of three broad categories:

1. **New construction**—Includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators, and plumbing, heating, and air-conditioning supplies and equipment.
2. **Additions, alterations or reconstruction**—Includes construction activity making structural changes to existing facilities. Generally, this type of activity is considered a capital investment in the property.
3. **Maintenance and repair**—Includes construction done for the purpose of upkeep of property rather than additional investment in the property.

Examples of the general distinction between maintenance and repair and reconstruction are provided here: roof repairs, including the replacement of shingles, gutters, etc., are classified under maintenance and repairs. A complete reroofing, however, is classified as reconstruction.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

All employees—Comprise all full-time and part-time employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

Construction workers—Includes all workers up through the working foreman level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment

operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1987.

Payroll—Includes the gross earnings paid in the calendar year 1987 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Employer costs for fringe benefits (supplemental labor costs)—Represents expenditures made by the employer during 1987 for legally required and voluntary fringe benefit programs for employees.

Legally required contributions—Include Social Security contributions, unemployment compensation, workman's compensation, and State temporary disability payments.

Voluntary payments—Include life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

Value of construction work done—Includes all value of construction work done during 1987 for construction work performed by general contractors, special trades contractors, subcontractors, and land development and improvement work. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include the value of buildings and other structures built or being built for sale in 1987 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators, etc., were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in the value of construction work done.)

Other business receipts—Includes business receipts not reported as value of construction work done or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

Net value of construction work—Derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted to others, and costs for materials, components, supplies and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, land receipts are also subtracted from dollar value of business done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Selected costs—Represents the costs for materials, components, and supplies; costs for construction work subcontracted to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1987 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)
- freight and other direct charges should represent only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, are included in this item as are costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Excluded from this item are:

- industrial and other specialized machinery and equipment, such as printing presses; computer systems; etc., which are not an integral part of a structure
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted to others include:

- all costs during 1987 for construction work subcontracted out to other construction contractors.

Excluded from this item are:

- The costs to the reporting establishment for its purchases of materials, components, and supplies, provided to a subcontractor for his use. Such costs are reported under a separate category, "costs for materials, components, and supplies."
- costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal and coke products, etc.

Rental costs for machinery, equipment, and buildings—Includes all costs during 1987 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It

excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in "capital expenditures."

Selected purchased services—Includes all costs during 1987 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies, or from other establishments of the same company. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property, or the cost of adapting it for another use. Such costs are included in "capital expenditures".

Assets and depreciation—Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and, (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987.

Capital expenditures—Refers to all costs actually incurred during 1987 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1987.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

Inventories—Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to report work in progress and finished units not sold for buildings and other structures built for sale.

Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Ownership of construction projects—This item shows the distribution of the value of construction work done by ownership of the project, that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal, and State and local governments.

Value of construction work subcontracted in from others—Includes the value of construction work during 1987 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1987. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose, i.e., office and residential, or commercial, they were to classify the building by major purpose.

In addition all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of these terms.

Building construction:

- **Single-family houses, detached**—Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (include townhouses)**—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken wall from ground to roof.
- **Apartment buildings with two or more apartments**—Includes high-rise, low-rise, or any structures containing two or more housing units (excluding attached single-family houses and townhouses described above).
- **Hotels and motels**—Includes hotels, motels, and tourist cabins intended for transient accommodations.

- **Other residential buildings**—Includes dormitories, fraternity and sorority houses, nurses homes, and other nonhousekeeping residential structures.
- **Office buildings**—Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more.
- **Other commercial buildings, such as stores, restaurants, and automobile service stations**—Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Industrial buildings**—Includes all industrial buildings and plants which are used to house production and assembly activities. Heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are not included in this category, but under nonbuilding construction.
- **Warehouses**—Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
- **Religious buildings**—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Farm buildings, nonresidential**—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes nonresidential buildings which are not classified elsewhere, such as fire stations, prisons, civic centers, bus and air passenger terminals and hangars.

Nonbuilding construction:

- **Highways, streets and related work, such as installation of guardrails, highway signs, etc.**—Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Recreational facilities**—Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Bridges and elevated highways**—Includes viaducts and overpasses; roads, highways, railroads, and causeways built on structural supports.
- **Tunnels**—Includes highway, pedestrian, and railroad tunnels.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, levees, and flood control projects.
- **Power and communication transmission lines, towers, and related facilities**—Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants, and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers, and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.

- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.

APPENDIX B.

Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	173	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	174	Masonry, Stone Work Tile Setting, and Plastering Special Trade Contractors
153	Operative Builders	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
154	General Building Contractors—Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Carpentry and Floor Work Special Trade Contractors
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified	176	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
161	Highway and Street Construction, Except Elevated Highways	177	Concrete Work Special Trade Contractors
1611	Highway and Street Construction Contractors, Except Elevated Highways	1771	Concrete Work Special Trade Contractors
162	Heavy Construction, Except Highway and Street Construction	178	Water Well Drilling Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1781	Water Well Drilling Special Trade Contractors
1623	Water, Sewer, Pipeline, and Communications and Powerline Construction	179	Miscellaneous Special Trade Contractors
1629	Heavy Construction, Not Elsewhere Classified	1791	Structural Steel Erection Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS	1793	Glass and Glazing Work Special Trade Contractors
171	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1794	Excavation Work Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1795	Wrecking and Demolition Work Special Trade Contractors
172	Painting and Paper Hanging Special Trade Contractors	1796	Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere Classified
1721	Painting and Paper Hanging Special Trade Contractors	1799	Special Trade Contractors, Not Elsewhere Classified
		6552	LAND SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES

APPENDIX C.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

Alaska
California
Hawaii
Oregon
Washington

APPENDIX C.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

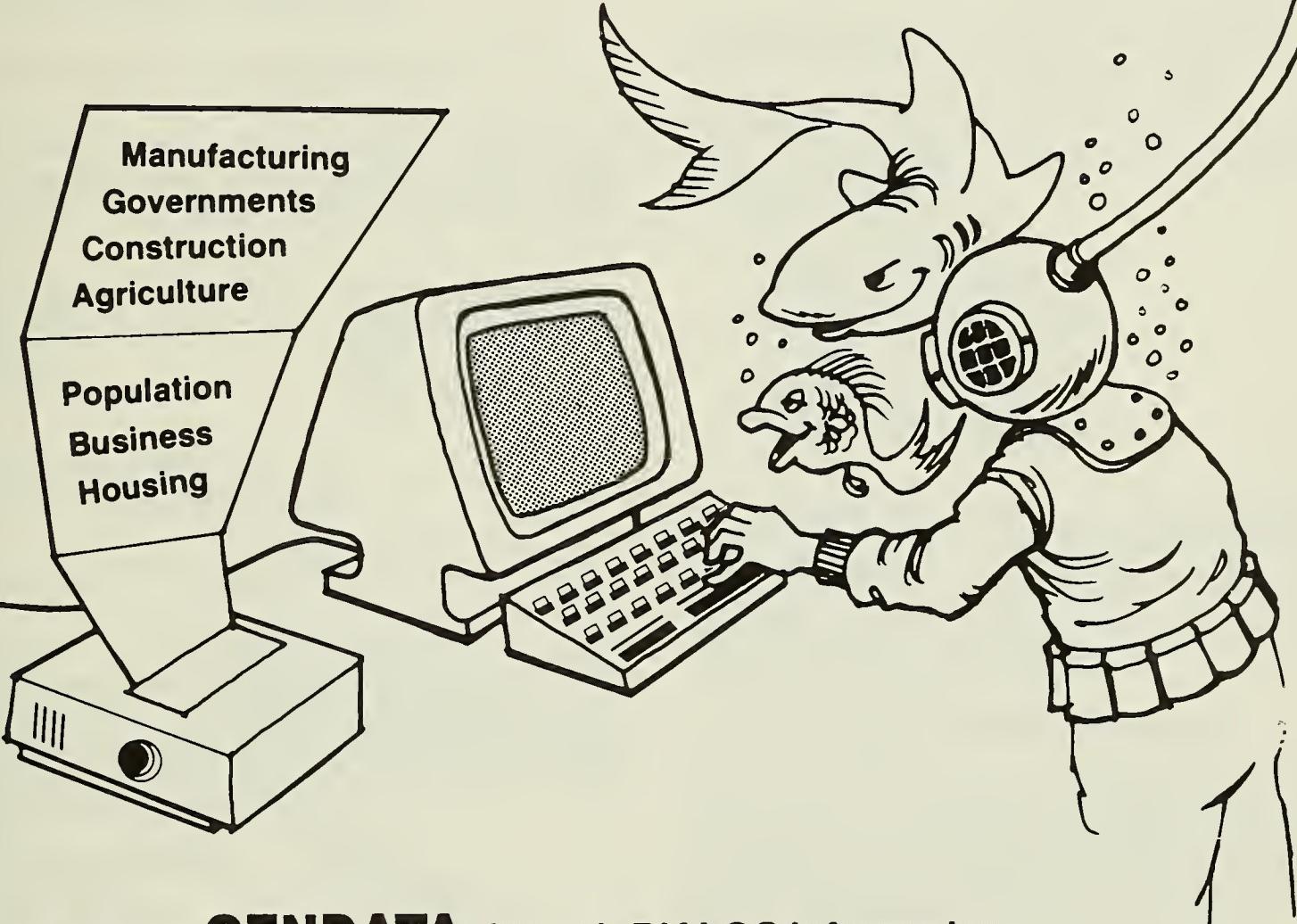
Alaska
California
Hawaii
Oregon
Washington

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PUBLICATION PROGRAM

1987 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)
- Land developers and subdividers

Data products in the Census of Construction Industries are issued in 4 publication series and in 3 other media:

- | | |
|---------------------|-----|
| • Printed reports | [P] |
| • CD-ROM | [C] |
| • Computer tape | [T] |
| • Highlights online | [+] |

Preliminary Industry Series (CC87-I-1(P) through CC87-I-28(P))

(Available November 1988 through May 1989) [P]

Twenty-seven separate industry reports and a United States summary report, providing national statistics for establishments with payroll. Statistics shown for 1987 include:

- | | |
|----------------------------|---|
| • Number of establishments | • Value of construction work done, by type of structure |
| • Number of employees | |
| • Payroll | |
| • Hours worked | • Selected operating costs |

Final Industry Series (CC87-I-1 through CC87-I-28)

(Available June 1989 through November 1989) [P] [C] [T] [+]

Twenty-seven separate industry reports and a United States summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- | | |
|------------------------|-----------------|
| • Capital expenditures | • Assets |
| • Inventories | • Depreciation |
| • Industry profiles | • And much more |

Geographic Area Series (CC87-A-1 through CC87-A-10)

(Available January 1990 through March 1990) [P] [C] [T] [+]

Nine reports on the construction industries, representing each census geographic division, and a United States summary report. Regional reports provide detailed data for States and metropolitan statistical areas.

Subject Report—Legal Form of Organization and Type of Operation (CC87-S-1)

(Available May 1990) [P]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

- | | |
|--------------|-----------------------------------|
| • Employment | • Value of construction work done |
| • Payroll | • Selected operating costs |

OTHER ECONOMIC CENSUSES REPORTS

The Census of Construction Industries is part of the 1987 Economic Censuses. These are conducted at five-year intervals in years ending in 2 and 7 and consist of seven separate censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the Census of Outlying Areas, including separate economic censuses of Puerto Rico and other outlying areas. The Census of Agriculture and Census of Governments are conducted separately.

HOW TO ORDER DATA PRODUCTS

Order forms for the specific reports and other data products may be obtained from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233. If you have any questions, call Census Customer Services 1-(301)-763-4100.



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